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SHOULD THE GENERAL PRACTITIONER STUDY REFRACTION?

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I HAVE been receiving so many letters from practitioners and from young men beginning medical life, asking advice in reference to taking up the study of ophthalmology, that the answerings have become frequent and onerous. To save repetition and time I purpose to publish the following general reply.

My answer to the inquiry of the above caption is, Yes! It may be you are not adapted to the work; it is possible that you will add one more to the already absurdly large number of "ophthalmic surgeons," success-hunters, "exaggeration"-criers, and refraction decriers—lots of good ideals and motives go wrong, lots of good men go wrong; we can't help that, and then, perhaps, after all, the ideals and the men were not so very good and very strong, and deserved failure.

The reason for the *Yes* is that of our 80 million people at least one-half need spectacles. At present it is utterly impossible for any but a small fraction of these needy ones to get right and accurate spectacles. Wrong ones increase disease, and there are millions of wrong ones now being worn. If at the lowest 30 millions of Americans are suffering and handicapped by the

want of proper glasses, then surely not over one million more have secured their due of relief. There are thousands of hundred square-mile stretches of our country in which there is not a skilled refractionist. In most cities not one in a hundred are correctly "glasses," although hundreds of oculists and opticians are begging for the business. In some large cities, and in many smaller ones, there is not a man who will or can estimate and prescribe for ametropia correctly. In smaller cities, and in villages, there is usually no one who pretends to do so, and in the country live millions who cannot even go to those who falsely pretend. If competent to do the work, and filled with the right spirit, ten thousand refractionists could set forth in one day, and each would soon be happy in his work of relieving human lives of disease and trouble, and within a year each could be making at the least from \$2,000 to \$5,000 a year.

The thoughtful and helpful editor of the *Medical Record* has so happily expressed one phase of the truth that I cannot forbear repeating here his entire editorial taken from his issue of June 22, 1907:

There is an enormous amount of suffering among the rural population of this country, especially the wives and daughters of farmers, due to uncorrected astigmatism and other ocular defects. On first thought one may be inclined to doubt the correctness of this statement, for the farmer is supposed to lead an outdoor life and to be little given to literary pursuits. But this is not true of many, if not the majority, of the rural population. In most farm houses of the better class one will find the weekly political paper and one or more agricultural or poultry journals, and in not a few several of the magazines and weekly story papers are also taken and faithfully read from cover to cover. Moreover, the women have their sewing and their mending and their fancy work—more eyestrain, in fact,

than many of their well-to-do and perhaps better educated sisters in the city. Numbers of these poor women are martyrs to headache, gastric disorders, and other ocular reflexes, ignorant for the most part of the cause of their suffering and unable, even if they suspect that their eyes are "weak," to obtain relief. At the best, or worst, they go to the country store and select from a small assortment the spectacles which they think they need, and their last state is perhaps worse than the first. The country doctor is seldom able to help them, for as a rule, up-to-date, sensible, and skillful practitioner as he is, he lacks the practical training and experience necessary for the correction of errors of refraction, and even if he has the qualifications needed for such work the demands of a country practice leave him no time for the tedious work of testing eyes.

Herein lies an opportunity for relieving suffering and attaining material success which is worthy of the consideration of the recent graduate in medicine. Specialists must, from the nature of their restricted practice, live only in the cities and larger towns, where the number of consultations are sufficient to occupy their time and afford them a living practice. But in the case of refractive errors especially, which are still so wrongly regarded as among the minor ills, the farmer and his women folk cannot afford the time and expense of a journey to the city in search of relief. There is need here for missionary effort, and, contrary to the rule of most missionary endeavor, the man who undertakes such a needed work will reap an ample reward. There is an opening in nearly every county of every State in the Union for a thoroughly trained and skillful oculist who will establish a circuit of small towns in each of which he has an office in which he may be consulted, say two days a month or a fortnight, by the country people in the district. The man should be an educated physician, with hospital training—as should be every specialist—and preferably with an experience of several years in general practice, during which time he has devoted his unoccupied hours to a study of the eye and its diseases and of refractive errors and the means of their detection and correction. He should indeed be the equal of any of his fellow specialists practising in the city. His way at first may not be easy, for he will be a missionary, and his task will be to educate the people, through their medical advisers, to an appreciation of the rôle of eyestrain

in the causation of many of the headaches and "dyspepsias" from which they suffer. He must be tactful in his relations with the practitioners in the towns embraced in his circuit, and should, of course, confine himself strictly to his specialty, and not encroach on the general practice of his colleagues. It will not be long, however, before such an "itinerant oculist," if he is skillful, and as honest and tactful as he is skillful, will make his way. One successful case in each town will establish his reputation, for farmers' wives are great gossips, and if he is careful to respect the rights of the local physicians they will be only too pleased to send him their teasing cases and "chronics" that their medicines have not relieved and which they will themselves soon learn to recognize as "eyestrain" cases and gladly refer to the oculist for relief.

There is nothing unethical in such a practice. Traveling quacks have caused honest physicians and intelligent laymen to regard the "itinerant" with suspicion, but the origin of all specialism was in quackery, and it was only when reputable practitioners began to devote themselves exclusively to a study of special diseases that the stigma attaching to special practice was removed. There are even now many reputable physicians and specialists who have offices in two or more places in the same city or in different cities, and a slight extension of this principle by educated, earnest, and honest young ophthalmologists will cause the itinerant oculist (not optician) to be regarded as a valued and honorable member of his profession.

Most of my letters have come from men who have been in general practice for some years, but others are from undergraduates and those just starting in practice. The latter class of men I always beg to give at least two years to the study of ophthalmology before going out as missionaries. After that the advice to the not-yet-practicing, and to those with established general practice, is much the same.

Almost always it comes sharply down to a question of money. How are the time and the expenses to be paid for? To the younger or inexperienced man that condition may be met:

1. By securing an internship in some hospital—a capital plan.
2. By acting as assistant to some oculist with established practice.
3. By unconquerable resolve and will to meet and overcome the obstacles.

To those who deserve to succeed the stern lineaments and denials of Fate grow softer, and finally she turns to help, when she finds she cannot scare the intrepid one. Hardships become unconquerable to weaklings.

And the overcoming of obstacles will also depend largely upon what kind of a motive spurs your resolve. One may hope you will be conquered by the obstacles, and will fail, if you have not something in your soul of benevolence, the love of humanity, the knowledge, inspiring heroism, that in refraction is a long and shamefully despised but a mighty means of beneficence. If you want only Success, with a big S, if you desire only “an elegant city practice,” if you are after medical politics, professorships, fame, LL.D. degrees, presidencies of medical societies, and all that, if you find in your own heart nothing but plain appetites and selfishness—well, perhaps you’d better then go hang yourself! You would thereby do more good to medicine and to the world than to proceed.

To the physician with practice already well or fairly established, I counsel not giving it up if it is in any way possible to hold it. The financial reason may demand it, and over and above that is the advantage gained from knowledge of general diseases and the opportunity it gives to show patients that glasses will cure when drugs, etc., will not; that innumerable patients are pitifully, and pitilessly, passed through the hands of medical men unhelped, and that the sole way to

help them is by glasses. General practice is a happy vantage-ground for the refractionist. Of course, one must leave the practice in the hands of some other while making the necessary long visits to the cities in the hunt for knowledge and skill in ophthalmometry. If one is on the good terms with neighbors which is desirable, this transfer and lending of practice is usually feasible. Visits at least six weeks long to the city hospitals and to the post-graduate schools, etc., should be planned and carried out, and should also be as frequent as possible. It goes without saying that if one resolves to break with general practice and give all the time required to the special study, then the two years of continuous study is most advisable.

How soon may one trust himself to commence refracting his home patients during the time of preparation, and when he comes back to practice from the cities? To that I should return with a "Yankee reply:" If you begin to refract soon will you stop the city visits soon? If so don't begin soon. But if you will keep up the month-or-two-long city visits for several years, then it would be well to try your hand at once upon cases, even after the first city-time of study. The reason for this apparently unconservative advice is, in a word, this: You can't do worse refraction than is being done by the neighboring optician and "the leading ophthalmic surgeon" of the next city. As the chances are that you will do far better than these, duty to humanity counsels that you at once try to help people out of the bad predicament we as a profession have put them into. But you must study hard, think hard, be most careful, seek advice constantly, go over the work again and again (regardless of cost), and keep up the study-trips to

the city, all until you are sure of yourself, not because of the security of egotism, but that of knowledge, and the results of treatment

In order to begin refractions at home thus early, one, of course, must devote the early studies entirely to refraction. Leave operations, pathology, and even inflammatory diseases aside at first, and learn the art of diagnosing ametropia and of prescribing lenses. Precisely that is what the world of sufferers needs. They need far less that you should become an "ophthalmic surgeon." So soon as you've got that art well in hand then go at the pig's eyes, see all the operations you may, learn all possible about inflammatory diseases.

Where shall you begin to study? As you must begin with refraction there can be only one answer: In Philadelphia. Things are bad enough there, Heaven knows, but they are so bad elsewhere that Heaven couldn't know. By the art of refraction, of course, is meant subjective refraction, supplemented by retinoscopy when the subjective method is impossible. Only two or three men in all Europe know anything about this art, and if you went there to study you'd never find them. The same may be said of New York, Chicago, etc. Some day some discerning philanthropist will give a million or two dollars to found a school of refraction. And if it should get into the right hands it will do more good to humanity than all the hundreds of millions that have been given to "charity" in the last generation. In the meantime we must wait and blunder along as best we may, until an aroused and repentent profession tires of anatomic pathology, laboratories, "Leaders," and east wind.

Because, when in your acquirement of this art, you come in contact with authorities in

ophthalmology you will discover an amazing thing:—Ophthalmology, long “pointed to with pride” as the perfected example, a true realized ideal, of medical science, accurate and mathematic in diagnosis and treatment, this hosannaed ophthalmology does not exist. The claim is arrant nonsense. So far as refraction is concerned it is the most inaccurate of all unsciences, a most ridiculous farce. Should the experiment be carried out with skill and cunning, any one of a million of sufferers from “migraine” giving the same symptoms, and going to 25 different leading physicians, would be ordered 25 radically different treatments: the stomach-man would test-meal her and wash her stomach out; the rest-cure man would put her into his private hospital; the nerve-man would say, *neurasthenia*, *Good morning*; the surgeon would gastrotomize her; the gynecologist would gynecologize her; the appendix-man would deappendicize her; others would make her a morphinomaniac; she would be phenacetinized, antikamnized, X-rayed, and laboratorized in a dozen ways; she would be wet-packed and talked learnedly about by one, dieted to death by a number, “passed on” by all. Now if the same patient were sent to 25 leading oculists of the cities the orders would be as variant and opposed: one would at once tenotomize, and keep on doing it, *ad infinitum*; others would “advance,” or tenotomize different muscles; one would send her to the general physician, or play the part himself; others would give glasses with prisms, placed one way, or placed another way; others would ophthalmometerize her, or retinoscope her; some would give no attention to astigmatism; some would give one axis, some other axes; all would give different amounts both of the spherical and of the cylindric cor-

rections, and the extremes would differ by two or three diopters; some would ignore presbyopia, or not order bifocal lenses; the frames of the patient would turn even good work into bad in the majority of cases, and few would attend to the optician's part with the care required to cure. In a word, the 25 (or the 100 indeed) would differ from each other by measures and amounts which constitute the essentials of eyestrain therapeutics. Success and failure are only by means of any one of these differences. If one is right, the other 24 or 99 are wrong. Such is ophthalmic science to-day! The picture is not overdrawn or exaggerated.

My last correspondent asks: "*How, where, of whom, may I learn how to be sure that the prescription I write for glasses is the single correct one which will cure my patient?*" Well, that is the essence of the matter! That is the whole difficulty. It will never be possible in an absolute way until we have an authoritative School or College of Refraction, and until, as a result of it, there is a sufficient number of men in agreement as to the science and art to form a body of authoritative opinion. Every oculist has learned to do his refraction-work in a differing and peculiar way, from all sorts of sources and authorities, but he has been mostly self-taught. Hence there is no science, no agreement; all is utter and absolute individualism. You will be compelled, for the most part, to teach yourself, the same as the rest of us have done. By our aid you can now learn to short-cut better than we did. I have set forth about 80 different sources of error in refraction work, 80 causes "why glasses failed to cure." I believe any one of these 80 points neglected may bring failure, and yet one-half of them at least are wholly

neglected by the majority of oculists. I trace all of my success in curing patients to the strict observance of each one. It is not an impossible task, by any means, not even a difficult one, and if you will religiously carry it out you will not be at all worried by the assumed superiority or contumely of the leaders, nor by their outrageous differences from one another. If you carry it out you will speedily find gratitude beyond desire from a numerous and ever-increasing body of patients.

One of your greatest difficulties will come from the unaccountable blundering and botchwork of the opticians. If you rely upon them for making and fitting your glasses, you will, as a rule, find an early grave. In some cities men who know their business may be found. We are exceptionally fortunate in Philadelphia. Generally the optician is forgetting his chief function and duty of fitting glasses, for the thing he never can do—the prescribing of glasses. Many opticians can prescribe far better than many oculists, but that does not change the law that the prescription of glasses, in a civilized civilization, must be a medical affair. If you do not live in a big city, you would better learn the great art of adjusting spectacles. Much of your success and failure will depend upon this art.